NNSA
Columbia Accident Investigation Board (CAIB) Lessons Learned Review

Brig Gen Ron Haeckel

Lab Ops Board

30 Mar 04

Presentation Outline

- **Tasking and Approach**
- **Management and Safety Culture**
- **Corporate Organization**
- **Technical Capability**
- **The Way Ahead**

Tasking

- **Ambassador Brooks' letter (9 Sep 03)**
  - **Is NNSA's management and safety culture appropriate for managing high technology, high-risk activities?**
  - **Are there issues raised by the CAIB report that should be considered as we implement NNSA's new organizational model?**
  - **Will the re-engineered NNSA provide for necessary technical capabilities?**
  - **What changes should NNSA adopt in light of the CAIB report?**
- **Final report forwarded to NNSA Administrator on 20 Feb 04**
- **Leadership Coalition discussed implementation 25-26 Mar 04**

Approach

- **Central NNSA team of HQ and Site representatives and 3 Sub-teams**
  - **Management and Safety Culture**
  - **Corporate Organization**
  - **Technical Capability**
- **Reviewed CAIB Report**
- **Identified NASA issues relevant to NNSA**
- **Developed NNSA lessons learned and recommendations**

Review Team

Team Chair

Brig Gen Ron Haeckel

Management & Safety Culture	Corporate Organization	Technical Capability
Ray Corey, NNSA SC (TL)	Robert DeGrasse, NA-60 (TL)	Xavier Ascanio, NA-124 (TL)
Larry Adcock, SSO	CDR Bob Brese, NA-10	CDR Bob Brese, NA-10
Mark Baca, NNSA SC	Mary Ann Fresco, NA-61	Jeff Kimball, NNSA SC
Kim Davis, DR-1	Gerry Gears, NNSA SC	Steve Lawrence, NSO
Maureen Hunemuller, NSO	Tim McEvoy, NSO	Emil Morrow, NA-3.6
James Mangeno, NA-3.6	Emil Morrow, NA-3.6	Mike Thompson, NA-117
Maria Rivera, NA-61	Tom Rotella, NA-41	
Carol Sohn, LSO	Ted Sherry, YSO	
Terry Wallace, NSO	Jim Winter, NA-13	

Additional Contributors

Rich Arkin (NA-40)	Steve Erhart (PSO)	Ralph Erickson (LASO)
Earl Hughes (EH)	Ed Wilmot (SRSO)	Bruce Wilson (SRSO)

Support Members

Ron Bentley, NA-13	Robin Phillips, SAIC

Management and Safety Culture

- **Lessons Learned**
  - **Oversimplification of technical information could mislead decision-making**
  - **Proving operations are safe instead of unsafe**
  - **Management must guard against being conditioned by success**
  - **Willingness to accept criticism and diversity of views is essential**
- **Recommendations**
  - **Re-evaluate decision-maker qualifications and technical development for key decision-makers and encourage continued technical growth of key NNSA decision-makers.**
  - **Communicate the cultural and organizational lessons learned for NNSA from the NASA CAIB report.**
  - **Change the safety behavior of NNSA to be more open to alternate views and minority opinions.**
  - **Develop and publish a safety culture policy statement that clearly defines NNSA's commitment and expectations regarding the role of safety within NNSA.**
  - **Hold periodic safety forums to discuss, as a minimum, trends, issues, lessons learned and best practices from both internal and external sources.**

Corporate Organization

- **Lessons Learned**
  - **Effective centralized and de-centralized operations require an independent, robust safety and technical requirements management capability**
  - **Assuring safety requires a careful balance of organizational efficiency, redundancy and oversight**
  - **Effective communications along with clear roles and responsibilities are essential to a successful organization**
- **Recommendations**
  - **Establish a Chief of Defense Nuclear Safety (in lieu of ES&H Advisor).**
  - **Elevate the management and oversight of operational and infrastructure issues.**
  - **Until the NNSA oversight model is defined and LO/CAS is fully implemented and evaluated as effective, NNSA consider reinstating on-site reviews of Site Office oversight systems.**
  - **Headquarters must provide clear guidance as necessary to Site Managers with respect to delegated safety authorities.**

Technical Capability

- **Lessons Learned**
  - **Workforce reductions, outsourcing, and loss of organizational prestige for safety professionals can cause an erosion of technical capability**
  - **Technical capability to track known problems and manage them to resolution is essential**
  - **Technical training program attributes must support potential high consequence operations**
- **Recommendations**
  - **Map out expectations of the Service Center for the next year or two.**
  - **Consider conducting an integrated NNSA Staffing Study and use the results to validate individual staffing plans.**
  - **The NNSA Service Center should employ sufficient technical resources, including support service contractors, to fill peak demand in support of Site Office and Headquarters requirements.**
  - **Provide the necessary resources and priority for continued technical growth of ES&H staff throughout their careers through additional academic training, rotations, and detail assignments within NNSA.**

The Way Ahead

- **As a near-term action, Site Offices and contractors should formally submit to the Administrator their Lessons Learned reports from the CAIB review applicable to their operations.**
- **Naval Reactors safety methods/culture and NNSA relationship with DoD deserve follow-on review.**
- **Consider establishing an enterprise-wide team to examine the collective lessons learned, integrate the results, and develop complex-wide (Site generic and enterprise-wide) recommendations for action.**
- **Develop an implementation plan to disposition and address recommendations.**